

May 15, 2013

Innovation Economics and Strengthening US-EU Collaboration

*EU-NJ Business Forum on Technology and
Innovation*

Stephen Ezell, Senior Analyst

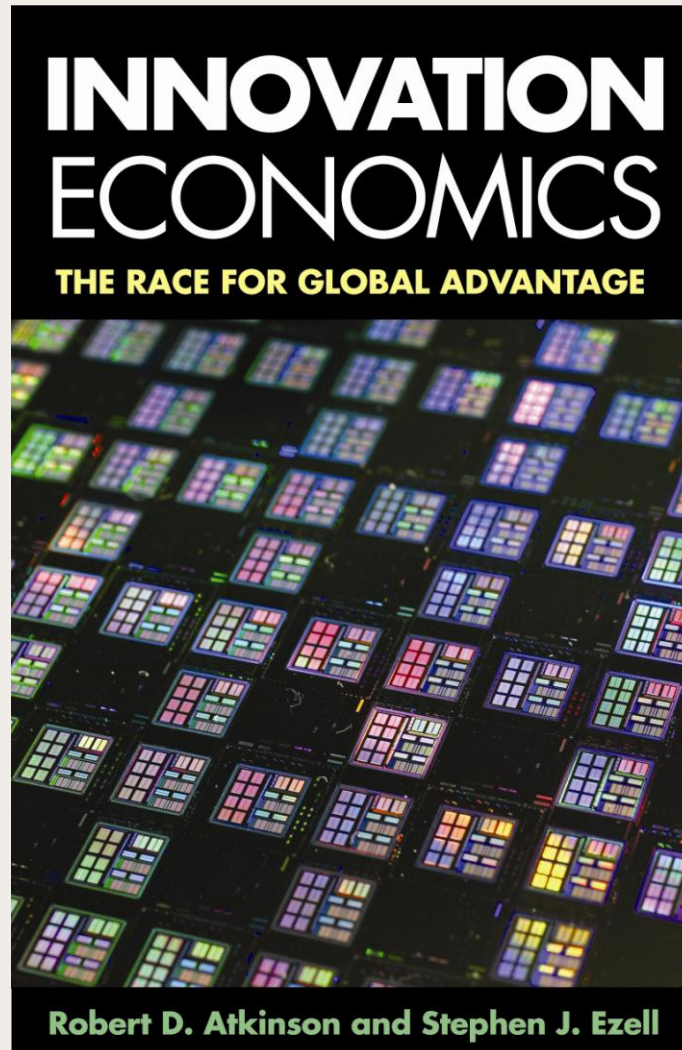
Information Technology and Innovation Foundation

ITIF is a public policy think tank committed to articulating and advancing a pro-productivity, pro-innovation, and pro-technology public policy agenda internationally, in Washington and in the states. ITIF focuses on:

- Innovation processes, policy and metrics
- Science policy related to economic growth
- E-commerce, e-government, e-voting, e-health
- IT and economic productivity
- Innovation and trade policy
- Clean energy



- Innovation Economics: The Race for Global Advantage



■ Today's Presentation

1

The Global Innovation Landscape

2

Maximizing Innovation: Country Level

3

Maximizing Innovation: Global Level

- Companies Have Gone From Shopping the States...



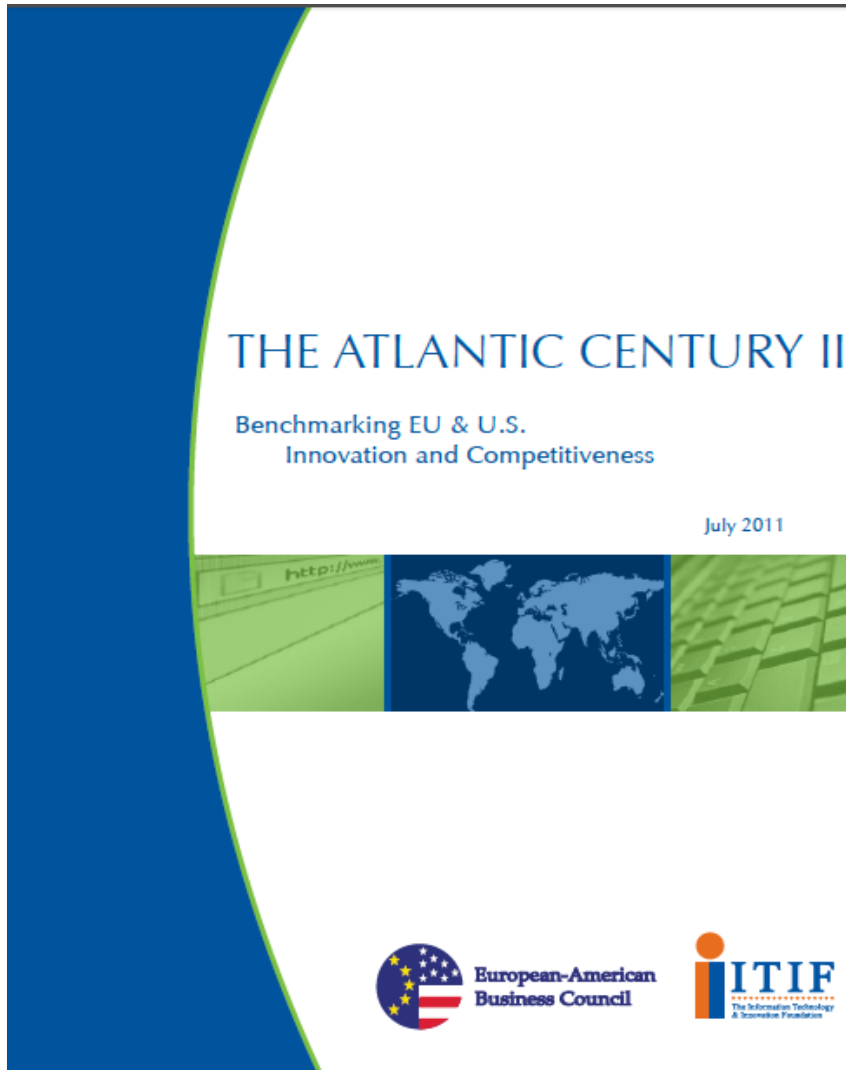
- ...To Shopping the World



■ Countries Introducing Innovation Strategies/Agencies

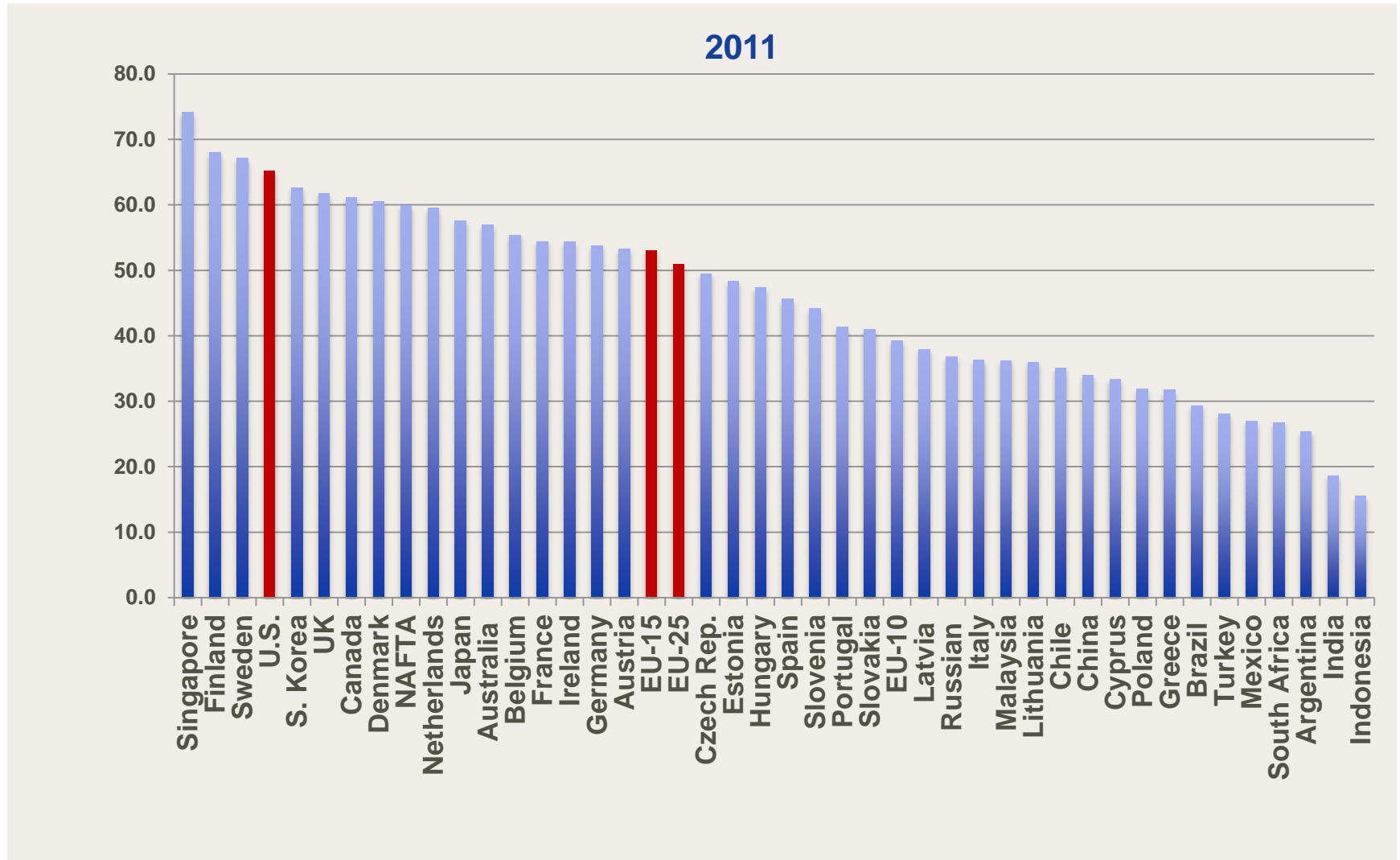
Country	Has Articulated a National Innovation Strategy?	National Innovation Agency/Foundation	Year Agency Introduced
Brazil	Yes	Brazil Innovation Agency	1967
China	Yes	Ministry of Science and Technology	1998
Denmark	Yes	Danish Agency for Science, Technology, and Innovation	2006
Finland	Yes	Tekes	1983
France	Yes	OSEO	2005
India	Yes	National Innovation Foundation	2000
Ireland	Yes	Forfas	1994
Italy	Yes	ENEA (National Agency for New Technologies, Energy and the Environment)	1999
Japan	Yes	New Energy and Industrial Technology Development Organization (NEDO)	1980
Korea	Yes	Korea Industrial Technology Foundation	2001
The Netherlands	Yes	Senter Novem	2004
Norway	Yes	Innovasjon Norge	2004
Portugal	Yes	Agência de Inovação	2003
South Africa	Yes	National Advisory Council on Innovation	2006
Sweden	Yes	VINNOVA	2001
Taiwan	Yes	Industrial Technology Research Institute	1973
Thailand	Yes	National Innovation Agency	2003
United Kingdom	Yes	Department of Business, Innovation, and Skills	2009
United States	Yes	N/A	N/A
Uruguay	Yes	National Research and Innovation Agency (ANII)	2008

■ The Atlantic Century II

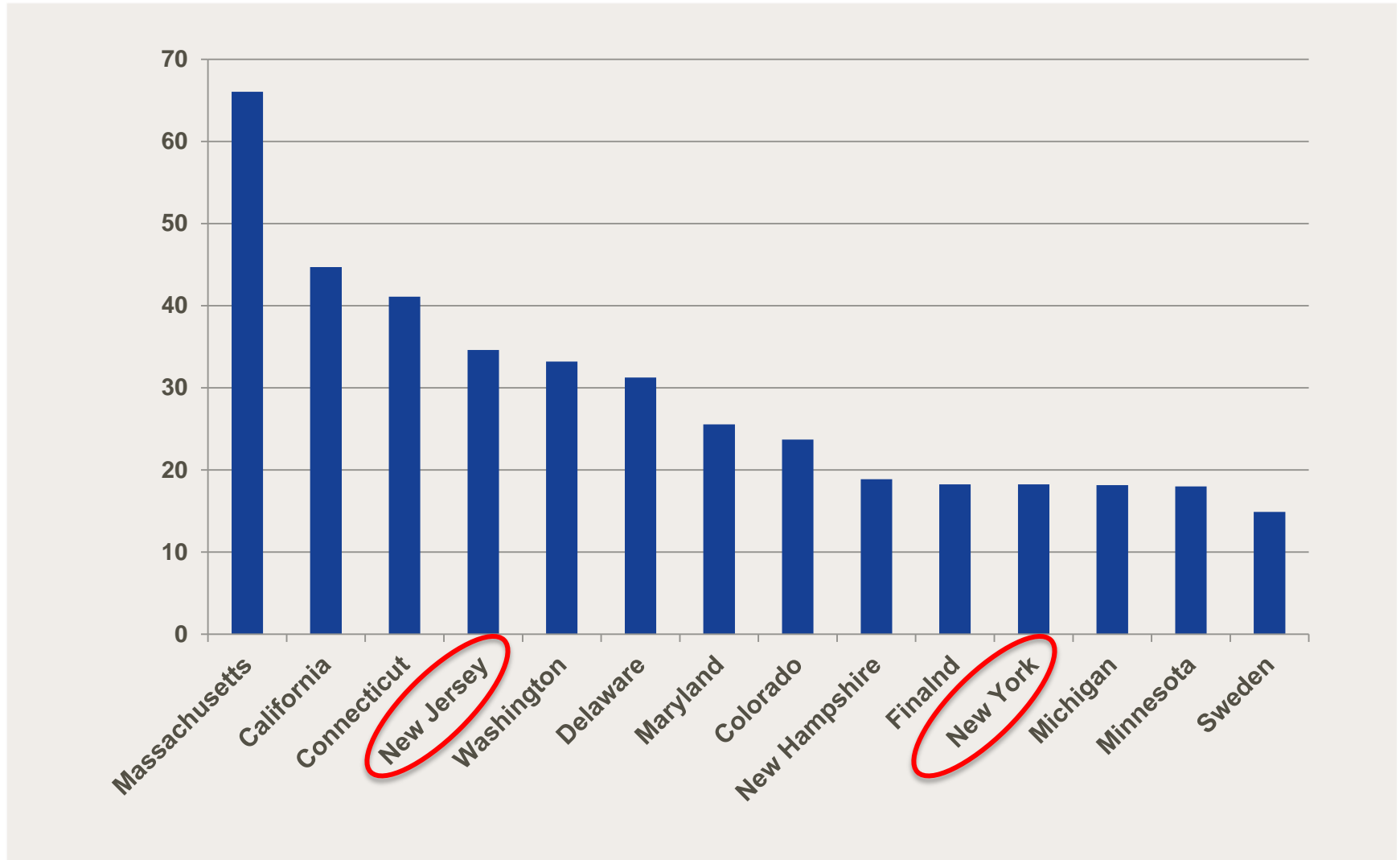


- **The Study:**
Compares innovation-based competitiveness of 44 nations and regions.
- **16 indicators:**
Including corporate and government R&D, scientists and engineers, new firms, corp. tax, productivity growth and others.

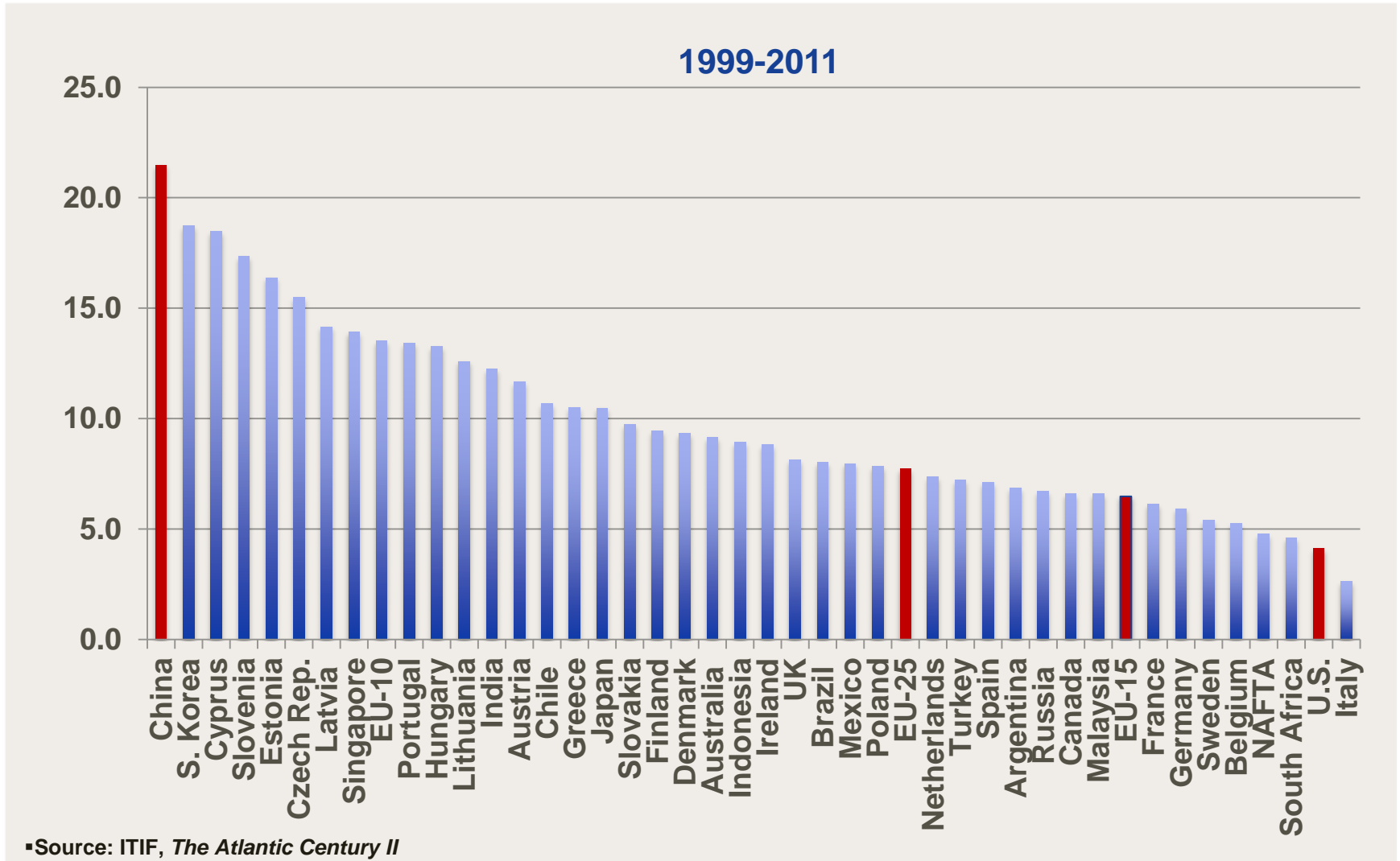
Overall Score for Global Competitiveness and Innovation



■ Some U.S. States Lead the World



■ But U.S. Second to Last at Improving Innovation Capacity



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■ Boosting National Innovation Competitiveness

1. Embrace “Innovation Economics”



Paul Krugman

“Productivity growth is the single most important factor to our economic well-being. *But it is not a policy issue, because we are not going to do anything about it.*”



Joseph Schumpeter

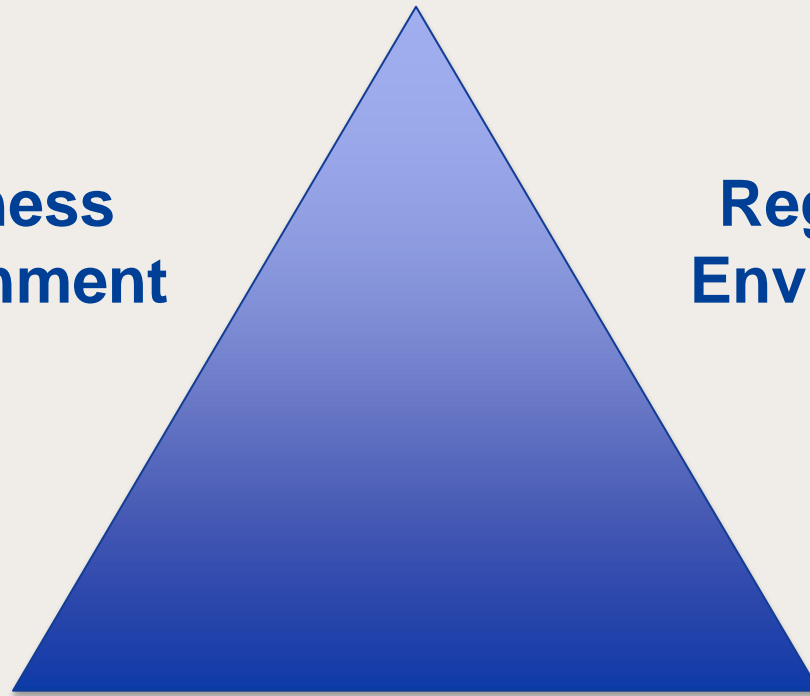
- The central goal of economic policy should be to spur higher productivity and greater innovation.
- Markets relying on price signals alone will not always be as effective as smart public-private partnerships in spurring higher productivity and greater innovation.

■ Boosting National Innovation Competitiveness

2. Get the “Innovation Triangle” Right

**Business
Environment**

**Regulatory
Environment**



**Innovation Policy
Environment**

■ Business Environment



1. Vibrant capital markets
2. High levels of entrepreneurship
3. Strong management skills
4. Strong ICT adoption, especially among business
5. Embrace dynamic churn and change (e.g. creative destruction)

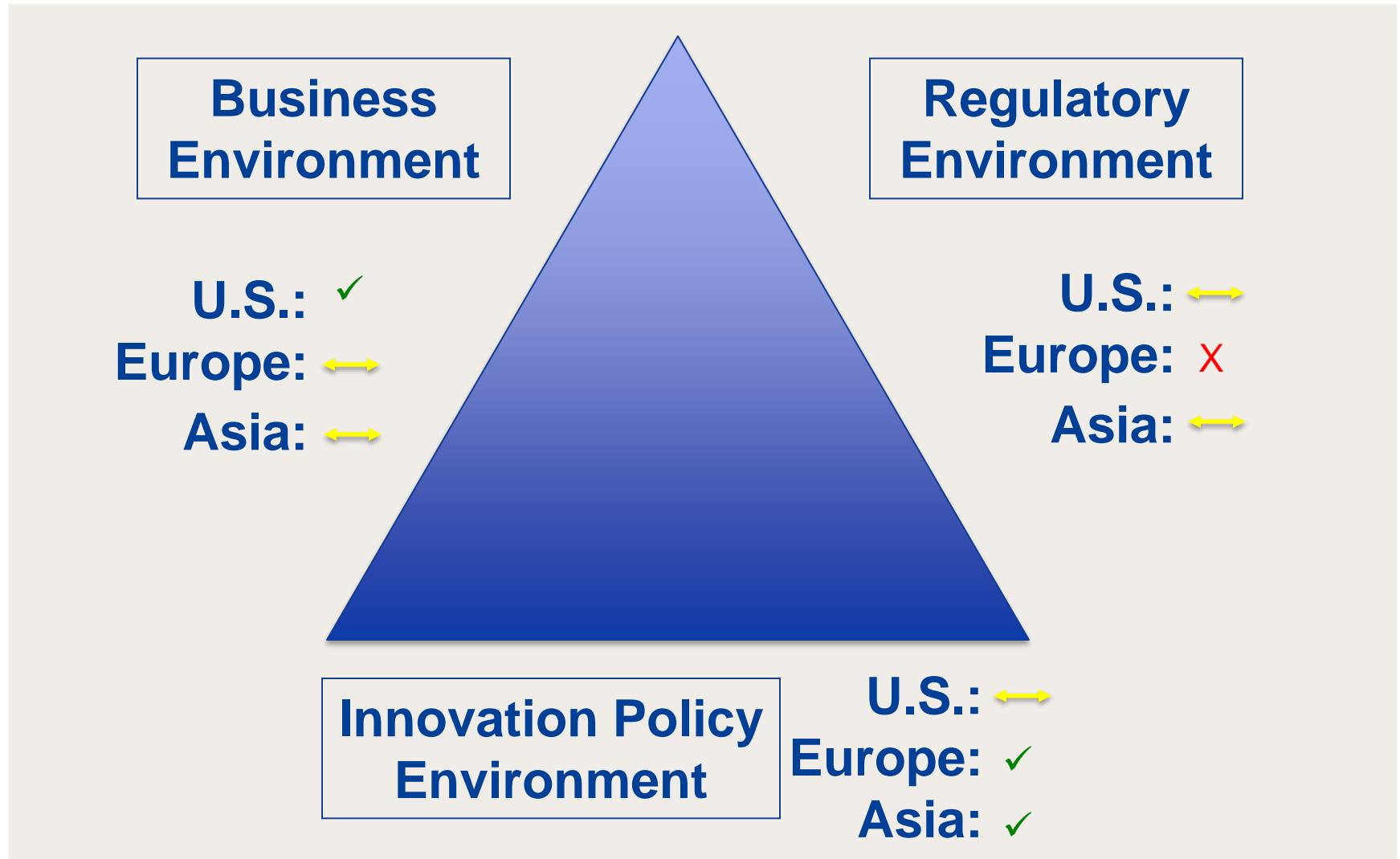
■ Regulatory Environment ▲

1. Transparency and rule of law
2. Protection of intellectual property (and other property rights)
3. Ease of starting a business
4. Competitive and open trade regime
5. Pro-competition anti-trust and regulatory policies

■ Innovation/Technology Policy Environment

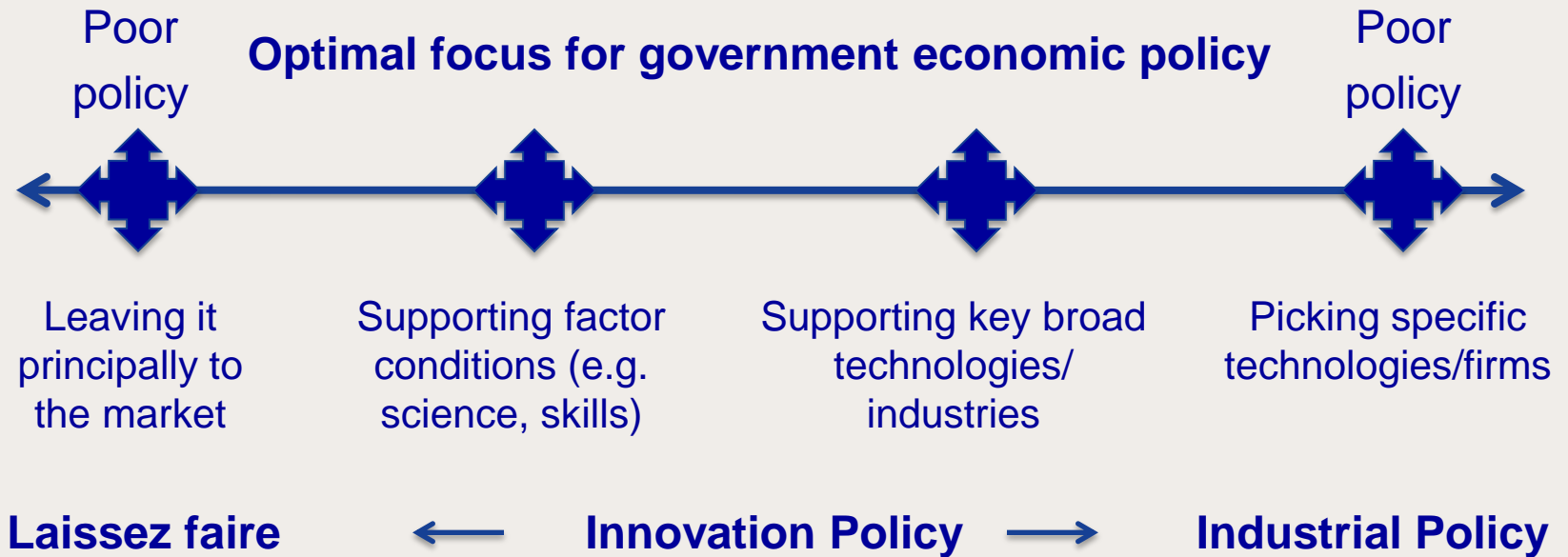
1. Funding for research, especially that which is commercially oriented
2. Incentives to invest in R&D, capital equipment, workforce training
3. Supporting technology transfer from universities and national labs
4. Strong STEM education system
5. Active policies to spur digital transformation

■ Boosting National Innovation Competitiveness



■ Boosting National Innovation Competitiveness

3. Find an Appropriate Role for Government in Supporting Innovation



■ Boosting National Innovation Competitiveness

4. Investing in Basic **and** Applied Research

National Network for Manufacturing Innovation (NNMI):

- 15 Manufacturing Institutes: PPP accelerating innovation by **investing in industrially relevant applied research** in advanced manufacturing sectors and technologies.



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■ Develop a New Global Innovation Consensus

1. Compete through “Good” not “Ugly” or “Bad” Innovation Policies

		World	
		Wins	Loses
Country	Wins	“Good” (e.g. R&D Support)	“Ugly” (e.g. IP Theft or Standards Manipulation)
	Loses	“Self-destructive” (e.g. Limiting High-Skill Immigration)	“Bad” (e.g. Import Substitution Industrialization)

■ Develop a New Global Innovation Consensus

2. Redesign the Global Trade System

- High-standard trade agreements that promote a knowledge- and innovation-based global trade system.
- View trade as a key driver of global innovation.



■ The EU-US Relationship

1. Accounts for half the world's GDP and one-third of world's trade.
2. \$1 trillion in annual bilateral trade in goods and services; each others' largest export markets.
3. 13 million American and European jobs are supported by transatlantic trade and investment.

■ Benefits of an EU-US FTA (T-TIP)

1. Tariff elimination alone boosts combined GDP by \$180 billion.
2. 50% NTB reduction increases GDP in both EU & US by 3%.
3. A free trade alliance to stand up to the innovation mercantilists.

"An EU-US FTA would signal to the world the seriousness with which both parties take true free trade, and that more than anything else would animate the global dialogue in favor of more serious multilateral trade liberalization."

Estimating the Potential Benefits of an EU-US Free Trade Agreement

BY STEPHEN EZELL | March 14, 2013

On March 13, 2013, ITIF moderated an event at the Swedish Embassy that focused on estimating the potential economic benefits of an EU-US free trade agreement—what's now being called the "TTIP" or Transatlantic Trade and Investment Partnership Agreement. This relationship is important because the United States and European Union (EU) together account for one-half of the world's GDP and one-third of world trade. The event featured the presentations of a new paper prepared by Sweden's National Board of Trade, *Potential Effects from an EU-US Free Trade Agreement—Sweden in Focus*.

The paper models the economic benefits of a trade pact in which tariffs are completely eliminated (currently, average tariff rates between the EU and US are less than 4 percent) and non-tariff barriers (NTBs) are reduced by 25 percent (the limited scenario) or by 50 percent (the more comprehensive scenario). These more comprehensive scenarios find that U.S. national income would increase by 0.5 percent, or \$74.5 billion, per year, and by \$36 billion in the more limited scenario. EU national income rises by that same amount, \$36 billion, in the more comprehensive scenario. Though the United States runs an approximately \$72 billion (\$94 billion) trade deficit with the EU in goods annually, the primary reason the United States benefits more (in this model) is that 20 percent of U.S. trade flows toward the EU, while only 6 percent of EU trade flows toward the United States.

The authors of the Swedish paper seem to have a slightly more conservative estimate than some other organization's estimates of the benefits from an EU-US trade agreement. (Though the authors do note that their estimates are likely to be more conservative because their economic model does not include foreign direct investments or consider dynamic effects.)

Perhaps the most aggressive estimate of economic benefits from an EU-US free trade agreement (FTA) has come from the U.S. Chamber of Commerce, which estimates that a 50 percent NTB reduction scenario would increase both EU and US GDP by 3 percent, generating annual gains of \$450 billion for the United States and \$495 billion for Europe. The Chamber also estimates that full tariff elimination alone would boost combined EU+US GDP by \$180 billion within five years. A more middle-ground estimate comes from the German Marshall Fund, which predicts that a trade pact would boost EU GDP by €190 billion (\$250 billion) and U.S. GDP by €100 billion (\$130 billion) annually. Likewise, *own research* released on March 12 by the European Commission and performed by the Centre for Economic Policy Research in London estimates that a transatlantic trade and investment pact would generate economic gains for the EU of €119 billion (or \$155 billion) per year and for the United States of \$95 billion (or \$124 billion) per year, while increasing GDP across the rest of the world by €100 billion (\$130 billion) annually. Regardless of which estimate proves closest to correct, they all make the central point that the gains from an EU-US trade pact are real and significant. Moreover, it's important to remember that the benefits of a free trade agreement are much less about trade equilibrium gains than they are about innovation gains. For example, car manufacturers being freed from having to obtain multiple certifications every time they put a new vehicle on the market or the pharmaceutical industry being freed from having to separately test new treatments on both sides of the Atlantic.

Sweden's National Board of Trade report makes several fabulous points in this regard. Perhaps the report's most important finding is that, "The positive impact on national income stems primarily from a nation's liberalization of its own markets. [This is]

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■ Ideas to Boost Transatlantic Innovation Collaboration

1. Establish bilateral agreements between US states & EU countries so that each others' firms may participate in public procurement.
2. Set aside co-funding in Horizon 2020 & NSF to fund collaborative Transatlantic R&D initiatives.
3. Introduce collaborative R&D tax credits; allow foreign firms to count toward the consortium requirements.
4. Develop consistent international regulations regarding clinical and ethical rules as well as standard laboratory procedures.
5. Develop common university-firm technology licensing agreements.

Thank You

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